

Title (en)

METHOD FOR RECYCLING SCRAP CONTAINING ALUMINIUM-LITHIUM-TYPE ALLOYS

Title (de)

VERFAHREN ZUR REZYKLIERUNG VON LEGIERUNGEN VOM ALUMINIUM-LITHIUM-TYP ENTHALTENDEN SCHROTT

Title (fr)

PROCÉDÉ DE RECYCLAGE DE SCRAP D'ALLIAGES DE TYPE ALUMINIUM-LITHIUM

Publication

EP 1913166 A2 20080423 (FR)

Application

EP 06794278 A 20060803

Priority

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Abstract (en)

[origin: WO2007015013A2] The invention relates to a method for melting scrap consisting of alloy components containing lithium. According to said method, (i) scrap containing aluminium-lithium-type alloys is collected (collection step); (ii) an initial bed of a liquid metal consisting of a first composition is prepared in a smelting furnace (preparation step for the initial bed of liquid metal); (iii) the scrap is loaded onto the initial bed of liquid metal in such a way as to create a floating blanket of the scrap with a controlled thickness on the surface of the bed of liquid metal (loading step), said blanket partially melting as it comes into contact with the bed of liquid metal in such a way as to obtain a bath of liquid metal consisting of a second composition that can be the same as, or different from, the first composition, and the lithium content of the bath of liquid metal consisting of a second composition amounting to between 0.1 %, preferably 0.2 %, and 2.5 % wt. % of the total weight; and (iv) the liquid metal is extracted (extraction step) from the bath of liquid metal consisting of a second composition. The inventive method is technically and economically advantageous in that it does not require investment into a particular installation, especially containing an inert atmosphere, and it does not require, or at least minimises, the use of expensive consumables such as inert gas, as the formation of a blanket of scrap with a controlled thickness enables the surface of the liquid metal to be protected from oxidation in a surprisingly efficient manner.

IPC 8 full level

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See references of WO 2007015013A2

Cited by

FR3126426A1; WO2023031545A1

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